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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/859,648	05/16/2001	Laurence M. Hubby JR.	10001006-1	3883

7590 12/28/2005  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

YENKE, BRIAN P

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/859,648

Applicant(s)

HUBBY, LAURENCE M.

Examiner

BRIAN P. YENKE

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Response (25 July 2005).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 is/are allowed.
- 6) ☒ Claim(s) 18-27,30,31,33,34 and 37 is/are rejected.
- 7) ☒ Claim(s) 28,29,32 and 35-36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>15 Apr 05</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicant's arguments (15 Apr 05) with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The examiner has made an earnest attempt to expedite prosecution of the present application, if the applicant wishes to discuss the merits of the rejection, the examiner invites the applicant to call the examiner.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-27, 30-31, 33-34 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Swanson, US 5,889,567 in view of Gove et al., US 5,729,245.

In considering claims 18, 21-27, 33-34

Swanson discloses (Fig 31-32) the use of a DMD 1260 (col 23, line 4-60) (the claimed reflective micro-mirror light valve) which includes pixels broken down into 3 subpixels for the red, green, blue color component. Swanson discloses the conventional feature of a DMD wherein each subpixel has an on state or off state, wherein the on state pixel is reflected via through prism 150 on path 1272, when the pixel is off the light is reflected via path 1278 away from projection lens 1280.

Although, the examiner maintains it is inherent for a light valve, whether DMD or LCD to have pixels arranged in parallel stripes, since obviously if the pixels (subpixels) were not even this would obviously be observed by the viewer, nonetheless the examiner incorporates such conventional via Gove, which discloses the use of a DMD (Fig 3-4), where the pixels are arranged in a conventional parallel stripe fashion.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize in Swanson which discloses a DMD in order to project an image, by utilizing a conventional DMD as taught by Gove, where the DMD utilizes a parallel striped arrangement, since the light reflected from such would thus produce an optimum display, since the pixels are obviously aligned.

Regarding (claim 1 and 30) the corresponding to the size and configuration of a color stripe illumination pattern, this is met since the actuated subpixels produce a configuration pattern (color striped) which directly corresponds DMD illuminated pixels (parallel stripes), where the pattern would correspond to either upstream/downstream based upon the orientation of the display/DMD device/light source.

In considering claims 19-20,

Neither Swanson nor Gove discloses the conventional circuitry/drivers associated with the use of a DMD, thus the takes OFFICIAL NOTICE regarding as such, since in order for Swanson/Gove to utilize/process data for display utilizing a DMD, they would obviously require the necessary address/row/column circuitry in order to properly reflect red, green and blue components of light onto a display.

In considering claim 37,

Neither Swanson nor Gove discloses the full color screen pixels of a single chip.

However, the implementation/function being integrated on a chip is notoriously wide known, since such implementation provides the advantages of consolidation which reduces the number of components and uses less space, thus the examiner takes "OFFICIAL NOTICE" regarding as such, since it would have been obvious to one of ordinary skill in the art to utilize the benefits/advantages as noted above in the Swanson/Dove combination.

***Allowable Subject Matter***

3. Claims 1-17 allowed.

Claims 28,29,32 and 35-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure—see newly cited references on attached form PTO-892.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (571)272-7359. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (571)272-7353.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(571)-273-8300**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is  
(703)305-HELP.

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The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS).

PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



B.P.Y  
25 December 2005



**BRIAN P. YENKE**  
**PRIMARY EXAMINER**